DOCUMENT RESUME

ED 338 764 UD 028 390

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TITLE An Evaluation of HISD's Required Academic Proficiency Program 1990-91.
INSTITUTION Houston Independent School District, TX. Dept. of Research and Evaluation.
PUB DATE 91
NOTE 55p.
PUB TYPE Reports - Evaluative/Feasibility (142) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Academic Failure; *Competency Based Education; Ethnicity; High Risk Students; *High School Students; Intermediate Grades; *Program Effectiveness; Program Evaluation; School Districts; Secondary Education; Secondary Schools; Secondary School Students; Sex Differences; *Student Improvement; Urban Schools; *Urban Youth
IDENTIFIERS *Houston Independent School District TX

ABSTRACT

This paper evaluates the Required Academic Proficiency tutorial program, implemented in the Houston (Texas) Independent School District (HISD) to reduce academic failure. Students are eligible for the program if they are failing (scoring lower than 70 on a scale of 100). A total of 14,748 students, eligible and non-eligible, attended the tutorials during the 1990-91 academic year. The evaluation examines four research questions related to the effectiveness of the program in secondary schools. The independent variables are attendance and cost; grade improvement serves as the dependent variable. Although there are statistically significant results on some tests of the null hypotheses, the low correlation coefficients, large sample sizes, and low effect sizes indicate minimal gains in all content areas. Very low correlations, many of them negative, were found between grade improvement and cost per student hour between schools. An analysis of variance indicates a statistically significant difference between high schools and between middle schools in grade improvement. This study also reports the pass-fail rates of elementary schools. Breakdowns of grade, ethnicity, and gender are presented. The data are presented on 18 tables and two graphs. Twenty-four references are appended. (JB)

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An Evaluation of HISD's Required Academic Proficiency Program 1990–91

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EXECUTIVE SUMMARY

AN EVALUATION OF HISD'S REQUIRED ACADEMIC PROFICIENCY PROGRAM 1990-1991 REPORT

PROGRAM DESCRIPTION

In accordance with Texas Education Code § 21.103, the Required Academic Proficiency tutorial program (RAP) was implemented in HISD to reduce academic failure. Students were eligible for the program if they were failing (scoring lower than 70 on a scale of 100). There were 3,513 eligible students and 3,189 non-eligible students that attended RAP during the first semester of the 1990-1991 academic year; 4,088 eligible and 3,958 non-eligible secondary students attended tutorials during the second semester. Elementary schools reported 20,824 students that attended tutorials throughout the school year.

EVALUATION QUESTIONS

The purpose of this report was to assess the effects of the tutorial program on grades. Attendance and grade change were the two main variables. The following questions were addressed:

1. Was there a difference in grade improvement between eligible students who attended RAP and eligible students who did not attend?
2. Was there a correlation between attendance and grade improvement?
3. Was there a correlation between cost per student hour and grade improvement?
4. Was there a difference between schools in grade improvement of students attending tutorials?

Because elementary schools do not report their six weeks grades to the regional database, no analysis of the their data was conducted. The information from elementary schools is presented in breakdown tables by gender, ethnicity, pass-fail rates, and by school.

RESULTS

Research Question 1: Although statistically significant differences were found in five content areas between those eligible students who attended tutorials and those who did not, the differences indicated that the program had no practical positive effects on grades. The statistical significance was due to large sample sizes.

Research Question 2: Similar results were found when all attending students (eligible and non-eligible) were included. No discernable correlation was found between tutorial attendance and grade improvement.

Research Question 3: Results indicated that cost per student hour had no statistically significant effects on grade improvement for students attending RAP.

Research Question 4: Analyses of variance indicated a difference between high school programs, and a difference between middle school programs with regard to students' grade change.

AN EVALUATION OF HISD'S REQUIRED ACADEMIC PROFICIENCY TUTORIAL PROGRAM 1990-1991 REPORT

DEPARTMENT OF RESEARCH AND EVALUATION
HOUSTON INDEPENDENT SCHOOL DISTRICT

The Required Academic Proficiency tutorial program (RAP) was implemented in HISD to reduce academic failure. This evaluation examined four research questions related to the effectiveness of the program in secondary schools. The independent variables were attendance and cost; grade improvement served as the dependent variable. Although there were statistically significant results on some tests of the null hypotheses, the low correlation coefficients, large sample sizes and low effect sizes indicated minimal gains in all content areas. Very low correlations, many of which were negative, were found between grade improvement and cost per student hour between schools. An analysis of variance indicated a statistically significant difference between high schools and between middle schools in grade improvement . This study also reports the pass-fail rates of elementary schools. Breakdowns of grade, ethnicity, and gender are presented.

Introduction

In 1984, the Texas Legislature passed Tex. H.B. 72, 68th Leg., 2d C.S., commonly referred to as House Bill 72. The intent of the bill was to remedy the perceived academic deficiencies of education in the state. Included in the bill were programs regarding teacher education, alternative certification for teachers, changes in school funding, and other areas that covered the gamut of education. Also included was a component that required each district to provide tutorial services. This section is now codified as Texas Education Code § 21.103 (West, 1990). The section states: (a) Each district shall provide tutorial services. (b) A district may require a student who is failing (lower than 70 on a scale of 100) a subject for a grading period to attend a tutorial session in that subject throughout the next grading period twice per week or more. (c) A district is not required to provide transportation to tutorials. To meet the requirements of this section, the Houston Independent School District (HISD) designed the Required Academic Proficiency (RAP) program to remediate students who were failing in one (or more) classes and/or on state mandated standardized tests. Beginning in October, 1990, Texas Assessment of Academic Skills became the state standard; Texas Educational Assessment of Minimum Skills was administered the five previous years. MAT6 scores were also used at the elementary level.

Since any service provided by the district must be provided to all students, tutorial sessions were available to many students who were not failing. As a result of district views about the development of site-based management, each school proposed its own program. School proposals included days of the week that the program would meet, time of day, type of instruction, length of the program, and budget. This study is part of an

annual evaluation conducted by the Department of Research and Evaluation of HISD. The data are from the first through sixth grading cycles of the 1990-1991 school year. The evaluation for the 1990-1991 school year has differed from the previous years' evaluations because this is the first year that tutorials have been held at every campus. For secondary schools, the following research questions were addressed: (1) Was there a difference in grade improvement between eligible students (i.e. those failing one or more courses, or subjects on the standardized tests) who attended RAP and eligible students who did not attend? (2) Was there a correlation between days in attendance at RAP and grade improvement? This question was distinguished from the first in that this addressed both eligible and non-eligible students across the district. (3) Was there a correlation between cost per student hour (not the budgeted amount but the actual amount spent) and grade improvement? And (4) was there a difference between schools in grade improvement of students attending RAP? Data from elementary schools are also presented.

Review of Literature

The majority of the literature on academic failure focuses on student attributes. Much of the literature involves the discussion of failure as it relates to minorities as ethnicity and socioeconomic status have been shown to be highly correlated with low academic achievement and dropping out of school (Rumberger, 1983; Pallas, 1984).

The correlation between low achievement and dropping out (Pallas, *ibid.*) is of primary concern for school districts and an important reason to implement intervention programs such as tutorials. Ekstrom, Goertz, Pollack, and Rock (1986) have reported many other influences associated with dropping out of school, including such factors as family structure, home educational support, and school behaviors. Ekstrom *et al.* also found that lower school grades and lower test scores were positively correlated with dropping out of school. Students with persistent failure in school are also likely to be more anxious, less academically able, and are more vulnerable to stress (Stevens & Phil, 1987).

It has been reported that failing students attribute their failure to difficulty in grasping the subject matter or to insufficient effort, and it has been suggested that this is due to emotional difficulties because they were shown to have lower academic self-concepts, lower family self-concepts, and lower attendance rates (Zarb, 1984). Also, Colosimo (1981) states that students who begin school failing continue to fail. However, as McDermott (1987) points out , the blame for failure should not be placed solely on the traits of the children coming to school, but rather, some responsibility ought to be given to the institutions themselves. Kagan (1970) states that the responsibility of persuasion to learn has been placed upon the child. McDermott (*ibid.*) argues that, instead of identifying which children are failing, it is of greater benefit to focus on successes. Sprinthall (1985) states:

> ...for young adolescents in the 1980s some important aspects of their world tend to be not much different than at the end of World War II. It is still a period of uneven physiological, psychological and physical development for both sexes. Effective school programs are almost non-existent. (p. 533)

Sprinthall adds the well-known developmental stages of the teenage years to the previously stated attributes. He suggested that a balanced learning experience that includes reflection is more appropriate than "studying harder, and studying harder subjects (p. 546). He noted that some of the exemplary programs that have been adopted throughout the country, including tutoring, might be an answer to helping educate young people.

Although there is no dearth of literature on academic failure, academic success has also been the focus of much research. In response to the correlation of minorities and academic failure, there have been programs that have targeted cultural incompatibility and helped minority children to succeed academically (Vogt, Jordan, & Tharp, 1987). In fact, many of the characteristics of failing students, like those listed above, have been the target of school improvement. Yet, the underlying aspects of these programs are similar. As noted by MacKenzie (1983), the "breakthrough" in the research on school improvement contains old ideas: (1) Some schools do better than others. (2) Successful schools maintain high standards while also using multiple strategies to counter their particular needs. (3) These schools acknowledge their problems but assume solutions will be found. And (4) these schools communicate well, and insist on commitment in every classroom. What are the characteristics of effective programs aimed at preventing academic failure? Of note in MacKenzie's review is the importance of instructional time; student engagement in learning tasks is a "master variable of pedagogy".

In Shapiro's (1989) review of prevention program studies, he found that time engaged is indeed an important factor. Prevention programs also need clear explanations of expected performance, as well as administrative support. Brophy (1987) agrees that expectation of success is crucial to motivating students. Also, directed, structured tutoring has been shown to be effective on student achievement (Rosenshine & Furst, 1969).

Most of the supplementary/remedial tutoring programs involve what is referred to as peer, or cross-age tutoring; that is, older students or adult volunteers are used instead of certified instructors which are more often used in preventive programs. In all tutoring programs reviewed by Slavin & Madden (1989), one-on-one instruction showed higher achievement than group instruction. However the intervention programs aimed at prevention tend to target large groups (Shapiro, *ibid*). The RAP program is certainly in this latter group; fifteen students are a required minimum for a class.

Tutoring programs, whether by peers or by teachers, have reported increases in academic and attitudinal growth (Cohen & Kulik, 1982). For example: Tutoring has shown gains in academic achievement through tutorial instuction aimed at increasing students' confidence in their ability (Sprinthall & Scott, 1989). Attendance at tutorials has been shown to increase academic achievement (Gahan-Rech, Stephens, & Buchalter, 1989). However, another study has reported tutorial attendance to have no correlation with improving math grades (Tullis, Ronacher, & Sanchez, 1991). Hence, the results of attendance were of interest here. Regarding the literature related to other questions addressed here, there were no studies found on cost-analysis of tutorials, and no studies found on school-to-school comparisons as were conducted here.

SECONDARY DATA

Methodology

A multi-method approach was taken to answer the research questions. Data on attendance came from rosters submitted by 26 middle schools and 17 high schools for first semester, and 30 middle schools and 24 high schools for second semester. Grades were from the district database. Although reduction of academic failure is the goal of the RAP program, grade improvement was chosen as the dependent variable because it provided more resolution, and because some non-eligible students were participating in the tutorials. For the questions of how attendance was associated with grade improvement, standardized roster sheets were sent to each school, and completed by the teacher of each tutoring session.

Because of some inconsistencies in reporting and late submission of rosters, some schools were omitted from this phase of the evaluation. The remaining 43 (first semester) and 54 (second semester) schools comprised the sample for this study. It should be mentioned that some of the tutorials were conducted during free periods of the regular school day, some after school, and some on Saturday. Although the tutorial programs varied in length (usually between six and nine weeks), the reported attendance came from tutorials that were conducted between the first and third six-week grade cycles for the first semester. Second semester reports were for tutorials conducted between the fourth and sixth-week grade cycles. Length of sessions, as well as the number of days per week, also varied among schools. The number of days per week ranged from one to five.

The subjects for this study were secondary school students enrolled in grades six through twelve; grade six is included in middle school in only two schools. Elementary schools were not included here because elementary school grade reporting is different from that of secondary school. As mentioned, eligible students were those whose grades were below 70 on a scale of 100, or whose scores were below 70% on standardized tests. District wide, there were 81,826 secondary students. There were 21,393 secondary school students eligible for tutorials district wide. Tables 1 and 2 provide demographics pertaining to the study of first semester data. Tables 3 and 4 provide demographics pertaining to the study of second semester data. The approach to the analyses of the four questions are discussed with each question.

Results

FIRST SEMESTER

Demographic Findings

Table 1 provides some descriptive statistics. (A breakdown of the table by ethnicity, gender, grade and eligibility is found in Table 2.) There are some aspects about the data that should be explained as well as some interesting observations that can be noted. Although the eligible students attending tutorials were slightly more in number than non-eligible students for all secondary schools, this was not the case in high schools alone. In all except two high schools, there were more non-eligible students (1,653 total) attending tutorials than eligible students (1,298). Even including middle schools, almost half of those attending tutorials are passing; 3,513 are eligible and 3,189 are non-eligible. Regarding race/ethnicity, the attendance to RAP is representative of the district as a whole. Also, attendance at the middle schools is higher than high schools. This is consistent with the elementary data which, when combined with secondary, indicate a consistent decrease in attendance as grade level increases. The exception to this is ninth grade which has a higher tutorial attendance. Aspects pertaining to student grade improvement relative to tutorial eligibility status are discussed below.

Table 1
Number of Students Attending RAP by Eligibility

Eligibility:	
Eligible students:	
Attending tutorials	3,513
Non-attending	17,880
Non-eligible students:	
Attending tutorials	3,189
Non-attending	48,627
missing†	8,617

† Students were missing from the database because grades were not reported for this cycle.

TABLE 2
Ethnicity/Gender by
Grade/Eligibility
1st Semester Breakdown of Students

		ASIAN		BLACK		HISPANIC		AMERICAN INDIAN		WHITE	
		Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
GRADE 6	Eligible Attending		5	149	220	123	223	1		25	33
	Eligible Non-Attending	6	13	342	609	321	662	1	1	53	123
	Not Eligible Attending	3	3	102	81	88	134		1	14	14
	Not Eligible Non-Attending	153	160	1262	1044	1682	1533	4	4	794	654
GRADE 7	Eligible Attending		2	135	192	132	262			13	36
	Eligible Non-Attending	3	10	602	908	600	954	1	1	72	125
	Not Eligible Attending	6	4	119	99	111	123			12	16
	Not Eligible Non-Attending	137	148	1668	1231	2020	1600	5	5	728	638
GRADE 8	Eligible Attending		5	128	146	122	218	1		12	29
	Eligible Non-Attending	8	12	470	649	582	898		2	73	131
	Not Eligible Attending	3	1	112	80	86	80	1		7	9
	Not Eligible Non-Attending	142	160	1641	1175	1607	1347	1	10	700	661
GRADE 9	Eligible Attending	1	6	129	119	138	222		1	25	33
	Eligible Non-Attending	30	45	911	1294	924	1491		1	119	228
	Not Eligible Attending	7	9	130	134	174	150			33	27
	Not Eligible Non-Attending	183	208	1485	1204	1683	1567	3	1	751	720
GRADE 10	Eligible Attending	2	6	37	53	68	76			12	20
	Eligible Non-Attending	14	18	439	475	403	641	1		70	127
	Not Eligible Attending	4	7	78	66	160	131			41	33
	Not Eligible Non-Attending	152	146	1305	1063	1232	1122	2	4	675	632
GRADE 11	Eligible Attending		2	27	49	64	50			14	13
	Eligible Non-Attending	8	20	277	309	253	364		1	63	92
	Not Eligible Attending	4	9	110	60	106	92			37	29
	Not Eligible Non-Attending	144	173	1272	942	986	825	3	3	687	611
GRADE 12	Eligible Attending	1	2	29	24	25	34			6	13
	Eligible Non-Attending	6	24	215	231	175	243	1		34	99
	Not Eligible Attending	6	7	47	40	71	48			15	15
	Not Eligible Non-Attending	152	143	1371	980	940	861	4	2	761	713

Results

SECOND SEMSESTER

Demographic Findings

Table 3 provides some descriptive statistics. (A breakdown of the table by ethnicity, gender, grade and eligibility is found in Table 4.) Almost half of those attending tutorials are passing; 4,088 are eligible and 3,958 are non-eligible. Regarding race/ethnicity, the attendance to RAP is representative of the district as a whole. Also, attendance at the middle schools is higher than high schools. This is consistent with the elementary data which, when combined with secondary, indicate a consistent decrease in attendance as grade level increases. Aspects pertaining to student grade improvement relative to tutorial eligibility status are discussed below.

Table 3
Number of Students Attending RAP by Eligibility

Eligibility:	
Eligible students:	
Attending tutorials	4,088
Non-attending	24,143
Non-eligible students:	
Attending tutorials	3,958
Non-attending	39,992
missing†	6,761

† Students were missing from the database because grades were not reported for this cycle.

TABLE 4
Ethnicity/Gender by Grade/Eligibility
2nd Semester Breakdown of Students

		ASIAN		BLACK		HISPANIC		AMERICAN INDIAN		WHITE	
		Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
GRADE 6	Eligible Attending	2	5	126	240	142	234		1	27	38
	Eligible Non-Attending	6	16	609	889	605	942	3	2	114	178
	Not Eligible Attending	10	9	133	95	126	140			53	61
	Not Eligible Non-Attending	147	153	998	730	1340	1214	4	6	702	547
GRADE 7	Eligible Attending		2	191	285	204	274		1	27	32
	Eligible Non-Attending	14	27	862	1152	969	1323		2	126	192
	Not Eligible Attending	1	8	162	117	164	149	1		27	41
	Not Eligible Non-Attending	132	132	1323	849	1467	1173	6	2	648	551
GRADE 8	Eligible Attending		2	180	213	98	149			15	24
	Eligible Non-Attending	6	23	719	899	858	1245	2	4	134	220
	Not Eligible Attending	1	4	170	99	65	67			12	10
	Not Eligible Non-Attending	146	161	1287	834	1355	1109	2	8	630	574
GRADE 9	Eligible Attending	3	7	153	159	141	2098			24	27
	Eligible Non-Attending	21	34	1096	1414	1068	1663	1	2	220	304
	Not Eligible Attending	14	18	129	81	177	156			27	33
	Not Eligible Non-Attending	192	210	1161	886	1387	1205	2	3	622	635
GRADE 10	Eligible Attending	2	6	78	91	72	108	1		10	15
	Eligible Non-Attending	16	30	550	638	528	756	3		139	197
	Not Eligible Attending	13	16	105	84	153	121			42	31
	Not Eligible Non-Attending	140	143	1078	818	1049	963	1	5	611	539
GRADE 11	Eligible Attending	1	1	72	75	52	75			14	14
	Eligible Non-Attending	10	32	334	405	322	433		1	97	140
	Not Eligible Attending	31	31	144	73	161	114			76	75
	Not Eligible Non-Attending	115	149	1063	739	825	666	3	2	598	511
GRADE 12	Eligible Attending	1	4	32	33	33	39			5	9
	Eligible Non-Attending	11	23	305	353	275	360	1	1	74	145
	Not Eligible Attending	12	9	75	41	96	62			16	17
	Not Eligible Non-Attending	143	140	1268	864	870	758	4	2	718	673

Question 1: Was there a difference in grade improvement between eligible students (i.e. those failing one or more courses, or subjects on standardized test(s)) who attended RAP and eligible students who did not attend?

FIRST SEMESTER

For the first analysis, a one way analysis of covariance (ANCOVA) was conducted to determine if there was an improvement of grades between the eligible students who attended RAP, and the eligible students who did not attend. Non-attending eligible students were randomly chosen for a comparison group. The grades from the first six-weeks grade report served as a covariate. For this question, measurement of the grade improvement variable included only the content area for which the student was scoring below 70%, which was also the specific subject of the tutorial session that such a student was attending. A comparison group was composed of 17,880 non-attending eligible students. Content areas of reading, English, math, social studies, and science were investigated separately. The power of each omnibus test was calculated above .99. Simply stated, power is the probability that the test will lead to a rejection of the null hypothesis.(i.e. the probability that the statistical test shows effects to be significant, according to chance, when in fact there are effects). The effect size (eta^2, or η^2) of main effects and covariates are reported on each subject area. Effect size is '"the degree to which the phenomenon is present in the population,' or 'the degree to which the null hypothesis is false'"(Cohen, 1977, p. 8). Because of the large sample sizes, and to ensure that the results reflect changes based on stringent standards, the alpha level (α) for each procedure was set at .005. All subject area grades were rounded to two decimals. For comparison, district wide grade changes are provided below:

Grade Means in Five Content Areas (District Wide):	1st 6 wks.	3rd 6 wks.
Reading (lower grades only)	79.07	77.90
English	79.61	77.84
Math	78.72	76.24
Social Sciences	79.76	77.68
Science	78.80	76.59

Reading Results of the effect of tutorials on reading grades demonstrated a statistically significant difference between groups, F (1; 11,607) = 15.68, p<.005. The first grading cycle reported the mean grade of all eligible students as 71.00. Of those, the mean of the non-attending students' third cycle grades dropped to 70.18, while the attending students' third cycle grades had a mean of 71.61. The eta^2 was .11. For perspective, it should be mentioned that the entire secondary population showed a grade change from 79.07 in the first six-weeks to 77.90 in the third six weeks–a difference of -1.18.

Impact of RAP on Reading Grade

Source	Sum of Squares	DF	Mean Square	F	Sig.
Covariate	378308.634	1	378308.634	2836.295	.000
Main Effects	2091.714	1	2091.714	15.682	.000
Explained	380400.348	2	190200.174	1425.989	.000
Residual	1548156.151	11607	133.381		
Total	1928556.500	11609	166.126		

English Similar results were found in English. A statistically significant difference was found between groups on main effects, F (1; 18,136) = 21.17, p<.005. The first grading cycle reported the mean grade of all eligible students as 69.08, from which the non-attending eligible students dropped to 69.01 and the attending eligible students' grades rose to 69.64 for the third grading cycle. Effect size was .10. The entire secondary population showed a grade change from 79.61 in the first six weeks to 77.84 in the third six weeks–a difference of -1.78.

Impact of RAP on English Grade

Source	Sum of Squares	DF	Mean Square	F	Sig.
Covariate	559724.334	1	559724.334	3917.965	.000
Main Effects	3024.819	1	3024.819	21.173	.000
Explained	562749.154	2	281374.577	1969.569	.000
Residual	2590926.644	18136	142.861		
Total	3153675.798	18138	173.871		

Math Grades in math resulted in statistically significant main effects differences: F (1; 19,619) = 26.8, p<.005 between tutorial groups. However, as with the other content areas, the eta^2 was low: .11. The mean grade for the first six weeks was 69.17, from which non-attending students dropped to 67.16, and attending students dropped to 68.04 for the third six weeks. The entire population showed a Math grade change from 78.72 to 76.24–a difference of -2.50.

Impact of RAP on Math Grade

Source	Sum of Squares	DF	Mean Square	F	Sig.
Covariate	694549.678	1	694549.678	5019.627	.000
Main Effects	3708.200	1	3708.200	26.800	.000
Explained	698257.878	2	349128.939	2523.213	.000
Residual	2714618.193	19619	138.367		
Total	3412876.071	19621	173.940		

Social StudiesData for social studies showed statistically significant main effects differences F (1; 17,781) = 9.29, p<.005. The effect size was .04. The first six weeks grading cycle for eligible students reported 69.49. The third cycle mean grade for non-attending students was 68.24, and 69.84 for attending students. The entire secondary population showed a grade change of -2.19–from 79.77 to 77.68.

Impact of RAP on Social Studies Grade

Source	Sum of Squares	DF	Mean Square	F	Sig.
Covariate	685427.080	1	685427.080	4946.803	.000
Main Effects	1287.593	1	1287.593	9.293	.002
Explained	686714.673	2	343357.337	2478.048	.000
Residual	2463728.565	17781	138.560		
Total	3150443.238	17783	177.160		

Science Science was the final content area that was studied. As with the other areas, a statistically significant difference was found on main effects F (1; 17,688) = 27.634, p<.005. Eta^2 was .13. The mean for all eligible students' first grading cycle was 68.88. Non-attending eligible students recorded an average grade of 67.36 for the third grading period while those attending RAP recorded 68.78. All secondary students showed a science grade change of -2.23–from 78.80 to 76.59.

Impact of RAP on Science Grade

Source	Sum of Squares	DF	Mean Square	F	Sig.
Covariate	518565.015	1	518565.015	3686.616	.000
Main Effects	3887.105	1	3887.105	27.634	.000
Explained	522452.119	2	261226.060	1857.125	.000
Residual	2488020.698	17688	140.662		
Total	3010472.817	17690			

SECOND SEMESTER

As with the first semester high school data, one way analysis of covariance (ANCOVA) was conducted to determine if there was an improvement of grades between the eligible students who attended RAP, and the eligible students who did not attend. Non-attending eligible students were randomly chosen for a comparison group. The grades from the fourth six-weeks grade report served as a covariate. For this question, measurement of the grade improvement variable included only the content area for which the student was scoring below 70%, which was also the specific subject of the tutorial session that such a student was attending. A comparison group was composed of 24,143 non-attending eligible students. Content areas of reading, English, math, social studies, and science were investigated separately. The power of each omnibus test was calculated above .99. Simply stated, power is the probability that the test will lead to a rejection of the null hypothesis. The effect size (eta^2, or η^2) of main effects and covariates are reported on each subject area. Effect size is '"the degree to which the phenomenon is present in the population,' or 'the degree to which the null hypothesis is false'"(Cohen, 1977, p. 8). Because of the large sample sizes, the alpha level (α) for each procedure was set at .005. All subject area grades were rounded to two decimals. For comparison, district wide grade changes are provided below.

Grade Means in Five Content Areas (District Wide):	4th 6 wks.	6th 6 wks.
Reading (lower grades only)	77.59	78.05
English	77.60	77.88
Math	75.98	76.00
Social Sciences	77.53	78.12
Science	76.60	77.35

Reading Results of the effect of tutorials on reading grades did not demonstrate a statistically significant difference between groups, F (1; 13,680) = 5.72, p<.005. The fourth grading cycle reported the mean grade of all eligible students as 71.42. Of those, the mean of the non-attending students' sixth cycle grades rose to 71.59, while the attending students' third cycle grades had a mean of 70.61. The eta^2 was .23. For perspective, it should be mentioned that the entire secondary population showed a grade change from 77.59 in the third six-weeks to 78.05 in the sixth six weeks–a difference of .46.

Impact of RAP on Reading Grade

Source	Sum of Squares	DF	Mean Square	F	Sig.
Covariate	566083.413	1	566083.413	3992.395	.000
Main Effects	811.819	1	811.819	5.725	.017
Explained	566895.232	2	283447.616	1999.060	.000
Residual	1939693.122	13680	141.790		
Total	2506588.353	13682	183.203		

English Similar results were found in English. A statistically significant difference was not found between groups on main effects, F (1; 26,226) = .525, p<.005. The fourth grading cycle reported the mean grade of all eligible students as 69.82, from which the non-attending eligible students rose to 69.86 and the attending eligible students' grades rose to 69.83 for the sixth grading cycle. Effect size .22. The entire secondary population showed a grade change from 77.60 in the fourth six weeks to 77.88 in the sixth six weeks–a difference of .26.

Impact of RAP on English Grade

Source	Sum of Squares	DF	Mean Square	F	Sig.
Covariate	1091787.739	1	1091787.739	7601.862	.000
Main Effects	75.473	1	75.473	.525	.469
Explained	1091863.212	2	545931.606	3801.194	.000
Residual	3766606.931	26226	143.621		
Total	4858470.142	26228	185.240		

Math Grades in math did not result in statistically significant main effects differences : F (1; 25797) = 5.331, p<.005 between tutorial groups. As with the other content areas, the eta^2 was low: it was .25. The mean grade for the fourth six weeks was 67.91, from which non-attending students dropped to 67.88, and attending students rose to 68.05 for the sixth six weeks. The entire population showed a math grade change from 75.98 to 76.00–a difference of .02.

Impact of RAP on Math Grade

Source	Sum of Squares	DF	Mean Square	F	Sig.
Covariate	1132589.878	1	1132589.878	8424.263	.000
Main Effects	716.713	1	716.713	5.331	.021
Explained	1133306.592	2	566653.296	4214.797	.000
Residual	3468246.527	25797	134.444		
Total	4601553.119	25799	178.362		

Social StudiesData for social studies did not show statistically significant main effects differences F (1; 23,649) = .276, p<.005. The effect size was .28. The fourth six weeks grading cycle for eligible students reported 69.87. The sixth cycle mean grade for non-attending students was 69.94, and 69.48 for attending students. The entire secondary population showed a grade change of .59–from 77.53 to 78.12.

Impact of RAP on Social Studies Grade

Source	Sum of Squares	DF	Mean Square	F	Sig.
Covariate	1254456.195	1	1254456.195	9431.761	.000
Main Effects	36.732	1	36.732	.276	.599
Explained	1254492.927	2	627246.463	4716.019	.000
Residual	3145397.187	23649	133.003		
Total	4399890.114	23651	186.034		

Science Science was the final content area that was studied. As with the other areas, no statistically significant difference was found on main effects F (1; 23,364) = 4.318, p<.005. Eta^2 was .23. The mean for all eligible students' fourth grading cycle was 69.26. Non-attending eligible students recorded an average grade of 69.19 for the sixth grading period while those attending RAP recorded 69.63. All secondary students showed a science grade change of .75–from 76.60 to 77.35.

Impact of RAP on Science Grade

Source	Sum of Squares	DF	Mean Square	F	Sig.
Covariate	974470.942	1	974470.942	7077.121	.000
Main Effects	594.566	1	594.566	4.318	.038
Explained	975065.508	2	487532.754	3540.719	.000
Residual	3217062.483	23364	137.693		
Total	4192127.991	23366	179.411		

Conclusions

Because the effect size for all analyses was low, it is difficult to believe that RAP dramatically improved the grades of those students who chose to attend tutorial. In fact, it is evident that, on average, RAP clearly failed to improve the grades of the eligible group who attended tutorial to a passing level. It has been previously noted that even incremental changes are often-times significant in educational programs and that even though a treatment fails to address the needs or deficiencies of all students, specific students may benefit. This analysis only investigated the impact of RAP on students defined as eligible. As such, investigations of individual student successes and failures are inappropriate. For this question, RAP failed to meet its stated goal of improving the academic success of students who were failing their coursework.

Question 2: Was there a correlation between attendance and grade improvement?

FIRST SEMESTER

Method Pearson's Correlation (r) was used to determine the relationship between attendance to RAP and the change in grade from the first six-weeks to the third. This included 3,513 eligible students and 3,189 non-eligible students. As with the previous question, the course grade in the subject which the tutorial was being given comprised the measurement of the dependent variable. Eligible (failing) and non-eligible (non-failing) students were grouped together to encompass all students that attended tutorials. It is the inclusion of non-eligible students that distinguishes this question from the previous research question.

Findings The average days of attendance to RAP for the entire twelve week period (combining all content areas) was 6.22 days. As mentioned in the previous section, the schools varied in the number of weeks that they offered their respective programs. Table 5 lists the correlation coefficients. Although the correlation between math and attendance was the only content area to not show a statistically significant difference, all five areas showed no discernable correlation.

Table 5
Relationship of Change in Grade by Days in RAP Attendance

Variable	N	Pearson r	Sig. Level
Reading*	5677	.0822	.000
English*	8054	.0610	.000
Math	9020	-.0038	.358
Social Studies*	7982	.0315	.002
Science*	8160	.0584	.000

* Significant at $\alpha = .005$

SECOND SEMESTER

Method Pearson's Correlation (r) was used to determine the relationship between attendance to RAP and the change in grade from the fourth six-weeks to the sixth. This included 4,088 eligible students and 3,958 non-eligible students. As with the previous question, the course grade in the subject which the tutorial was being given comprised the measurement of the dependent variable. Eligible (failing) and non-eligible (non-failing) students were grouped together to encompass all students that attended tutorials. It is the inclusion of non-eligible students that distinguishes this question from the previous research question.

Findings The average days of attendance to RAP for the entire twelve week period (combining all content areas) was 6.84 days, slightly higher than the average of 6.22 for the first semester. As mentioned in the previous section, the schools varied in the number of weeks that they offered their respective programs. Table 6 lists the coefficients. Although three areas resulted in statistically significant differences, these areas showed inversed (i.e. negative) relationships.

Table 6
Relationship of Change in Grade by Days in RAP Attendance

Variable	N	Pearson *r*	Sig. Level
Reading	5,742	-.0096	.234
English*	11,395	-.0559	.000
Math*	11,043	-.0332	.000
Social Studies*	9.825	-.0325	.001
Science	9,806	.0163	.053

* Significant at $\alpha = .005$

Conclusions

These results indicate that attendance at RAP did not influence grade changes in specific academic content areas. The reader should be aware that there are approximately 85-90 instructional days in a semester. Thus, it is difficult to imagine that 6.22 (first semester) or 6.84 (second semester) days, at an average of one hour per tutorial, would impact student grades. However, correlation analysis is concerned with the specific changes that occured for individual students and not just all students on average. Thus, it is evident that RAP did not impact the grades of student who spent time in tutorial. Such a result is disheartening but not surprising. Because RAP offered generic instructional services to students and did not offer diagnostic/prescriptive assistance, and the amount of instructional time was very limited (as compared to the regular semester), it is difficult to imagine results other than presented here. This analysis places no blame on program personnel, administrative staff, or instructional staff. Rather, the noted problems are intrinstic to the model(s) developed. Clearly, more suitable tutorial models are called for.

Question 3: Was there a correlation between cost per student hour and grade improvement?

FIRST SEMESTER

Method Information on school expenditures came from the administration's database as each school periodically reports financial statements. The expenditures included amounts spent from the beginning of the fall term to the end of the third six-weeks grading cycle. The intent of this procedure was to distinguish between school tutorial programs on the cost variable, and to see the role that finances play in the effectiveness of tutorials. The data was analyzed by two procedures. A correlation study was conducted between average grade change at each campus and cost per student per hour at each campus.

A *t*-test was used to look at the differences between a group of high schools who spent more money on their program and a contrasting group of high schools who spent less on RAP programs. Groups were determined by dividing the overall group into halves according to spending. Middle schools were similarly grouped into high and low groups (also divided into equal groups), and studied using the same procedure. Grade change/cost/student hour was chosen instead of grade change/cost/student. While both provide useful, although slightly different information, the deciding factor in choosing the former was that many students attend RAP classes in different content areas.

Findings Forty-three schools were included in the study of association between the cost per student hour and grade improvement. The information is presented in two formats: a scattergram of the correlation (Figure 1), and a *t* -test of the high and low group (based on spending) (Table 7).

Results indicated a very low correlation; the coefficient was -.09 with an R^2 of .008 and a standard error of 5.71. The two-tailed significance was .5512 which indicates the two variables are not statistically related.

The *t*-test indicated that cost per student hour had no statistically significant effects on grade change between high schools. This result was the same for middle schools. For the range of grade differences and cost, the mean grade change at each school divided by the cost per student hour provided a univariate measure that ranged from $17.75 to <$4.66>.

Figure 1
The Relationship of Mean Grade Change to Cost per Student Hour

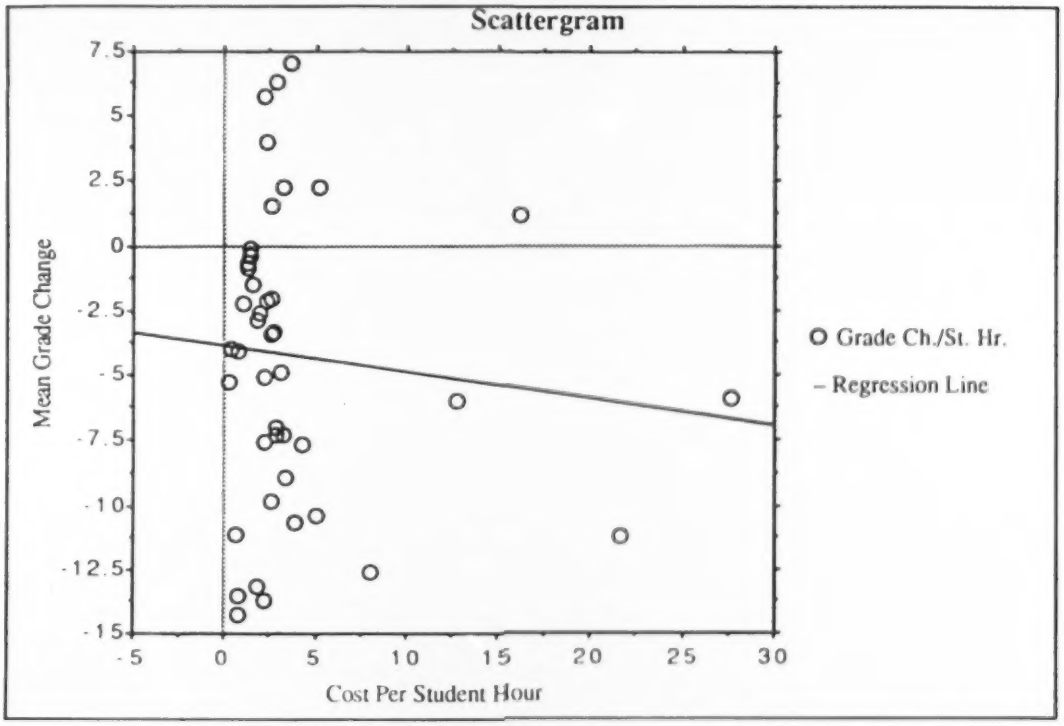

Table 7
Effect of Cost per Student Hour on Grade Change

Pooled variance estimate(upper 8 and lower 9, based on spending):

Variable	*t* value	*df*	2-tailed prob.
High Schools	.89	15	.389

Pooled variance estimate(upper 13 and lower 13, based on spending):

Variable	*t* value	*df*	2-tailed prob.
Middle Schools	-.21	24	.833

SECOND SEMESTER

Method Information on school expenditures came from the administration's database as each school periodically reports financial statements. The expenditures included amounts spent from the beginning of the spring term to the end of the sixth six-weeks grading cycle. The intent of this procedure was to distinguish between school tutorial programs on the cost variable, and to see the role that finances play in the effectiveness of tutorials. The data was analyzed by two procedures. A correlation study was conducted between average grade change at each campus and cost per student per hour at each campus.

A *t*-test was used to look at the differences between a group of high schools who spent more money on their program and a contrasting group of high schools who spent less on RAP programs. Groups were determined by dividing the overall group into halves according to spending. Middle schools were similarly grouped into high and low groups (also divided into equal groups), and studied using the same procedure. Grade change/cost/student hour was chosen instead of grade change/cost/student. While both provide useful, although slightly different information, the deciding factor in choosing the former was that many students attend RAP classes in different content areas.

Findings Fifty-three schools were included in the study of association between the cost per student hour and grade improvement. The information is presented in two formats: a scattergram of the correlation (Figure 2), and a *t* -test of the high and low group (based on spending) (Table 8).

Results indicated a negative correlation for all secondary schools on the association of cost per student hour and grade improvement; the coefficient was -.52 with an R^2 of .27. In other words, for the second semester of 1990-1991, as secondary schools spend more money on tutorials, the grades of their RAP students went down. The scattergram also shows two outliers. These schools are alternative schools that had only 2 and 3 students respectively and each school spent their tutorial budget of $960 while their students recorded a drop in grades. As can be seen in the scattergram, one of these schools recorded a very low drop in grades. The *t*-tests indicated a difference between schools on the grade change per cost per student hour. However, as the correlation shows, the relationship of cost/student hour to grade change is negative.

Figure 2
The Relationship of Mean Grade Change to Cost per Student Hour

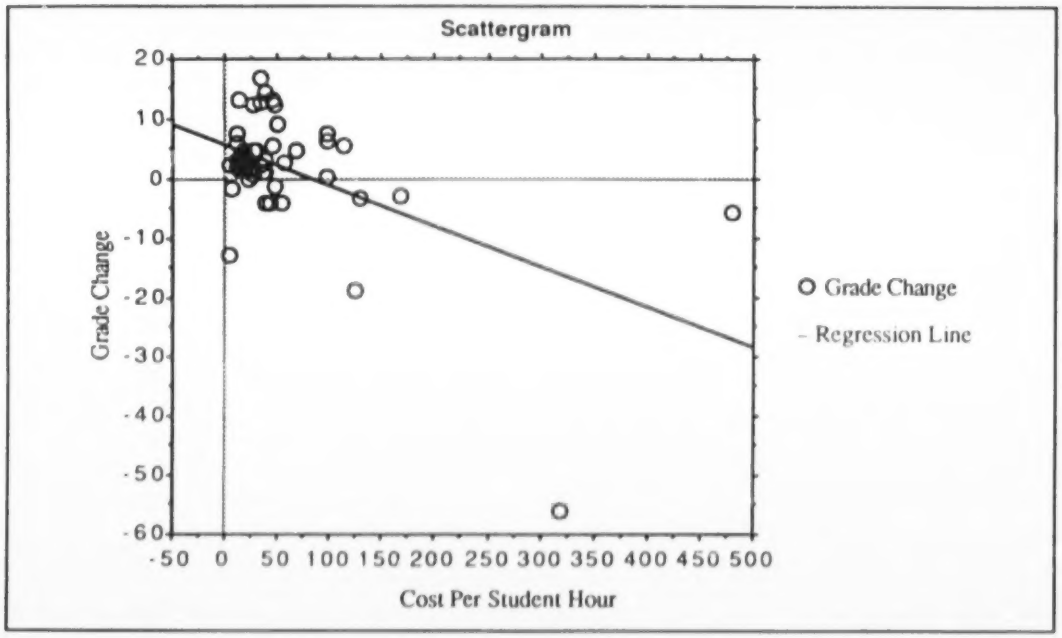

Table 8
Effect of Cost per Student Hour on Grade Change

Pooled variance estimate(upper and lower groups, based on spending):			
Variable	*t* value	*df*	2-tailed prob.
High Schools	3.026	23	.0062

Pooled variance estimate(upper and lower groups, based on spending):			
Variable	*t* value	*df*	2-tailed prob.
Middle Schools	5.273	29	.0001

Conclusions

These results indicate that grade change is not impacted by the amount of monies expended at a school. However, it should be pointed out that the quotient of this analysis was the number of students attending tutorial at a given school. Because some schools had very low attendance rates, the cost per student-hour was inflated in those schools. This factor is a limitation of the analysis that cannot be overlooked. With nine exceptions, all programs demonstrated fairly low costs per student-hour (see Figures 1 and 2). Thus, it is appropriate to conclude that, because individual tutorials demonstrated a range of grade change while expending approximately the same amount of dollars per student hour, the evidence of no relationship between dollars expended per student hour and grade change is accurate.

Question 4: Was there a difference between schools in grade improvement of students attending RAP?

FIRST SEMESTER

Method As with the previous question, the intent was to distinguish between schools on grade improvement. It was desired that the overall effect of each school's program could be investigated, allowing identification of certain programs that might provide useful ideas to other schools. An ANOVA was conducted on data from seventeen high schools. A separate ANOVA was performed on data from twenty-six middle schools. Students' mean grade changes at each campus served as the dependent variable.

Findings Results indicated a statistically significant difference between high schools, F (16; 4,203) = 7.10, p<.000. An omnibus test also indicated statistically significant differences between middle schools, F (25; 9,337) = 7.16, p<.000. (See Table 9 below.) The mean grade change for schools was -4.50. It may be noticed that there is a difference between these data and those listed as the content area grade changes from the first question's results. There are three reasons for the difference. The first reason is that one included duplicates (i.e. students who attended tutorials in more than one content area) and the other did not. Second, the base for one included all eligible students, and the other included only RAP attendees. Finally, there were tutorials given in areas other than the five main content areas (e.g., study skills).

Table 9
Impact of RAP on Aggregated Mean Campus Grade Change

High Schools

Source	Sum of Squares	DF	Mean Square	*F*	*p*
Between Groups	74893.088	16	4680.8180	7.097	.000
Within Groups	2831453.195	4293	659.5512		
Total	2906346.283	4309			

Middle Schools

Source	Sum of Squares	DF	Mean Square	*F*	*p*
Between Groups	15831.514	25	6332.5806	7.1599	.000
Within Groups	8258172.103	9337	884.4567		
Total	8416486.617	9362			

SECOND SEMESTER

Method An analysis of variance (ANOVA) was conducted on data from twenty-four high schools. A separate ANOVA was performed on data from twenty-nine middle schools. Students' mean grade changes at each campus served as the dependent variable.

Findings Results indicated a statistically significant difference between high schools, F (23; 5,699) = 7.5656, p<.000. An omnibus test also indicated statistically significant differences between middle schools, F (28; 6,277) = 5.2855, p<.000. (See Table 10 below.) The mean grade change for schools was 3.98. As with the first semester, it may be noticed that there is a difference between these data and those listed as the content area grade changes from the first question's results. There are three reasons for the difference. The first reason is that one included duplicates (i.e. students who attended tutorials in more than one content area) and the other did not. Second, the base for one included all eligible students, and the other included only RAP attendees. Finally, there were tutorials given in areas other than the five main content areas (e.g., study skills).

Table 10
Impact of RAP on Aggregated Mean Campus Grade Change

High Schools

Source	Sum of Squares	DF	Mean Square	*F*	*p*
Between Groups	106637.377	23	4636.407	7.5656	.000
Within Groups	3493482.40	5699	612.823		
Total	3599119.77	5722			

Middle Schools

Source	Sum of Squares	DF	Mean Square	*F*	*p*
Between Groups	144824.254	28	5172.294	5.2855	.000
Within Groups	6142534.577	6277	978.578		
Total	6287358.832	6305			

Conclusions

Based on results presented here, it is evident that significant differences of grade improvement exists between tutorial programs. Tables 9 and 10 indicate that the differences are statistically significant, and the range of grade changes from school to school show real variation between programs. This is not surprising since, as mentioned earlier, there are differences between schools regarding academic success. This, plus the fact that schools varied in their programs with regard to time of day, types of instruction, and focus, could explain these differences between schools.

ELEMENTARY DATA

Methodology

The evaluative aspect regarding the elementary data is more difficult to ascertain than that of the secondary because, as of two years ago, elementary schools do not report their six weeks grades to the regional database. This was intended to reduce the amount of the teachers' paperwork. Therefore, elementary schools report their grades only at the end of the year. This creates several problems for evaluating any program at the elementary level. First, there is no covariate or pretreatment variable to measure academic gains or losses. Second, it is unknown which students have been eligible throughout the program, beginning with the first cycle of the year. Therefore, no comparison between eligible and non-eligible groups can be made.

Attendance rosters were collected from the schools. The final grades of attending students were drawn from the database for students who attended the RAP program. Schools reported 20,824 elementary students attended the tutorial sessions. It is estimated that this is approximately three/fourths of the total number of elementary students that attended the program for the academic year. Because of late reporting of attendance, the remainder (whose rosters arrived late) are not included in the tables. Variables for the following tables include pass-fail rates, content area, school, gender, and ethnicity. Where pass-fail rates are reported, "fail" means below 70% on a scale of 100. Grades are reported on each content area only from students who attended tutorials in that respective content area.

Findings

Despite the above-mentioned problems in evaluating the tutorial program at the elementary level, a breakdown of the pass-fail rates for the end of the year provides some useful information. Table 11 provides the number of students that attended tutorials in each content area in each grade. The percent of students that passed the course in the respective subject area is also given. The count of failed courses is listed by grade in Table 12. In this table, the number of students are listed by grade that failed one course, two courses, etc. The percentage listed is the percentage of attending students in each grade that failed one course, two courses, etc. Tables 13 and 14 provide the number of attending students and their pass-fail rates by ethnicity, while Tables 15 and 16 provide a breakdown by gender. Tables 17 and 18 present the breakdowns by school. Percentages listed in Table 17 are the percentage of students (unduplicated count) at each school that attended tutorials who passed the respective content area. Percentages in Table 18 are the percentages of students that attended tutorials who failed at least one class at each school.

Table 11 Pass/Fail Rate
(Content Area by Grade)

		Grade					
		1st	2nd	3rd	4th	5th	6th
Math	Total Number	2,809	3,489	4,589	4,099	4,223	396
	Percent Passed	75%	88%	86%	85%	86%	92%
Reading	Total Number	2,635	3,395	4,506	3,971	4,157	395
	Percent Passed	60%	76%	83%	85%	89%	92%
Language	Total Number	2,608	3,379	4,491	3,970	4,160	395
	Percent Passed	63%	81%	88%	88%	91%	94%
Spelling	Total Number	1,987	2,757	3,942	3,726	4,050	397
	Percent Passed	60%	78%	86%	86%	88%	92%
Science	Total Number	2,814	3,490	4,592	4,101	4,222	399
	Percent Passed	87%	91%	89%	86%	88%	93%
Social Studies	Total Number	2,806	3,489	4,583	4,095	4,218	399
	Percent Passed	88%	91%	89%	85%	86%	90%

Table 12 Pass/Fail Rate
(Count of Failed Courses by Grade)

		Grade					
		1st	2nd	3rd	4th	5th	6th
1Course	Total Number	277	329	407	396	373	38
	% of Students	9%	9%	8%	9%	8%	9%
2Courses	Total Number	259	247	260	219	210	15
	% of Students	9%	7%	5%	5%	5%	4%
3Courses	Total Number	272	222	225	189	141	7
	% of Students	9%	6%	5%	4%	3%	2%
4Courses	Total Number	255	151	156	142	114	14
	% of Students	8%	4%	3%	3%	3%	3%
5Courses	Total Number	129	101	125	137	97	3
	% of Students	4%	3%	3%	3%	2%	1%
6Courses	Total Number	159	89	105	132	144	5
	% of Students	5%	2%	2%	3%	3%	1%

Table 13 Pass/Fail Rate
(Content Area by Ethnicity)

		Ethnicity				
		Asian	Black	Hispanic	American Indian	White
Math	Total Number	343	8,067	9,863	17	1,315
	Percent Passed	94%	83%	86%	88%	88%
Reading	Total Number	259	8,059	9,415	17	1,309
	Percent Passed	86%	81%	79%	71%	85%
Language	Total Number	256	8,055	9,366	17	1,309
	Percent Passed	90%	84%	83%	82%	89%
Spelling	Total Number	256	8,050	7,227	17	1,309
	Percent Passed	90%	83%	81%	71%	85%
Science	Total Number	342	8,071	9,874	17	1,314
	Percent Passed	94%	87%	89%	100%	92%
Social Studies	Total Number	343	8,066	9,851	17	1,313
	Percent Passed	95%	87%	87%	94%	91%

Table 14 Pass/Fail Rate
(Count of Failed Courses by Ethnicity)

		Ethnicity				
		Asian	Black	Hispanic	American Indian	White
1 Course	Total Number	23	700	955		142
	% of Students	6%	8%	9%		10%
2 Courses	Total Number	16	423	693	1	77
	% of Students	4%	5%	7%	6%	5%
3 Courses	Total Number	13	396	576	2	69
	% of Students	4%	5%	6%	11%	5%
4 Courses	Total Number	6	376	408	2	40
	% of Students	2%	4%	4%	11%	3%
5 Courses	Total Number	6	239	318		29
	% of Students	2%	3%	3%		2%
6 Courses	Total Number		382	232		20
	% of Students		4%	2%		1%

Table 15 Pass/Fail Rate
(Content Area by Gender)

		Gender	
		Female	Male
Math	Total Number	8942	10663
	Percent Passed	87%	83%
Reading	Total Number	8701	10358
	Percent Passed	84%	77%
Language	Total Number	8674	10329
	Percent Passed	88%	81%
Spelling	Total Number	7723	9136
	Percent Passed	86%	79%
Science	Total Number	8949	10669
	Percent Passed	91%	86%
Social Studies	Total Number	8941	10649
	Percent Passed	90%	85%

Table 16 Pass/Fail Rate
(Count of Failed Courses by Gender)

		Gender	
		Male	Female
1 Course	Total Number	758	1062
	Percent Passed	8%	9%
2 Courses	Total Number	462	748
	Percent Passed	5%	7%
3 Courses	Total Number	405	651
	Percent Passed	4%	6%
4 Courses	Total Number	303	529
	Percent Passed	3%	5%
5 Courses	Total Number	205	387
	Percent Passed	2%	3%
6 Courses	Total Number	214	420
	Percent Passed	2%	4%

Table 17: Pass/Fail Rate (School by Content Area)

School Name	Total Duplicated Count	Total Unduplicated Count	Math Number	Math Percent	Reading Number	Reading Percent	Language Number	Language Percent	Spelling Number	Spelling Percent	Science Number	Science Percent	Social Studies Number	Social Studies Percent
Alcott	273	206	200	89%	196	84%	196	83%	198	84%	199	92%	200	93%
Allen	77	76	74	92%	74	92%	74	92%	74	93%	74	93%	74	95%
Almeda	79	43	38	68%	37	46%	37	57%	37	70%	38	58%	37	46%
Anderson	321	281	260	91%	238	87%	237	90%	233	91%	259	95%	259	96%
Atherton	233	106	104	92%	104	89%	104	91%	104	89%	104	96%	104	95%
Barrick	246	124	117	93%	116	86%	116	92%	116	91%	117	95%	116	94%
Bastian	386	207	196	76%	194	73%	196	72%	194	73%	198	81%	198	76%
Berry	285	154	146	82%	145	76%	144	85%	95	79%	146	98%	146	86%
Blackshear	255	143	136	83%	135	81%	136	83%	136	85%	135	89%	136	92%
Bonham	169	116	99	59%	97	51%	97	64%	96	63%	99	74%	99	70%
Bonner	485	331	315	90%	315	88%	315	90%	224	87%	314	94%	315	93%
Bowie	210	141	132	78%	131	82%	131	88%	123	86%	132	80%	132	83%
Braeburn	249	149	139	93%	139	87%	138	92%	83	86%	139	91%	139	93%
Durham	86	51	46	83%	45	84%	45	89%	45	87%	46	87%	46	91%
Briargrove	120	78	72	88%	71	85%	71	90%	71	87%	72	90%	72	86%
Briscoe	604	148	129	99%	129	97%	129	100%	101	95%	129	97%	128	96%
Brock	87	71	71	94%	71	92%	71	92%	54	82%	71	93%	71	9%
Brookline	338	337	325	94%	324	94%	325	94%	254	94%	325	92%	325	94%
Browning	182	162	157	91%	157	90%	159	93%	129	88%	157	98%	157	99%
Bruce	268	90	86	83%	85	78%	85	80%	86	79%	86	87%	86	85%
Burbank	495	230	217	85%	214	83%	201	88%	180	80%	218	91%	218	86%
Codwell	336	206	194	87%	194	87%	194	81%	194	80%	194	87%	194	88%
Burnet	318	173	170	88%	166	85%	166	84%	91	82%	170	97%	170	95%
Burrus	115	78	76	72%	74	74%	74	76%	74	72%	76	83%	76	76%
Carnegie	174	97	95	74%	91	70%	90	77%	88	78%	94	81%	95	82%
Clinton Park	284	70	68	90%	68	87%	68	84%	68	82%	68	93%	68	91%
Condit	182	110	104	83%	78	91%	82	85%	81	85%	103	71%	104	75%
Coop	457	200	187	87%	187	75%	187	78%	121	75%	187	87%	185	89%
Cornelius	224	209	207	85%	206	78%	205	87%	193	83%	207	96%	207	84%
Crawford	536	123	120	88%	116	88%	116	87%	114	83%	121	87%	121	88%
Crockett	158	100	97	98%	96	95%	97	99%	91	95%	97	100%	97	95%
Cunningham	336	246	222	78%	211	68%	211	71%	119	77%	222	82%	222	82%
DeChaumes	192	171	169	85%	169	72%	169	82%	168	78%	169	85%	168	80%
DeZavala	171	105	99	88%	98	85%	98	90%	54	89%	99	91%	99	88%
Dodson	160	94	89	69%	89	66%	89	65%	88	66%	89	80%	89	73%
Dogan	238	122	117	80%	116	73%	116	74%	116	68%	117	89%	117	86%
Douglass	240	66	66	86%	66	88%	66	92%	66	85%	66	92%	66	91%

Table 17: Pass/Fail Rate (School by Content Area)(Cont.)

School Name	Total Duplicated Count	Total Unduplicated Count	Math Number	Math Percent	Reading Number	Reading Percent	Language Number	Language Percent	Spelling Number	Spelling Percent	Science Number	Science Percent	Social Studies Number	Social Studies Percent
Dow	122	76	68	87%	68	82%	68	88%	59	90%	68	88%	68	91%
Durkee	493	186	171	91%	169	75%	170	79%	142	80%	170	96%	171	95%
Easter	80	54	51	92%	50	90%	50	92%	51	92%	51	84%	51	86%
Eighth Avenue	157	119	112	94%	112	93%	112	94%	108	93%	112	95%	112	92%
Eliot	281	174	166	96%	165	95%	165	97%	142	96%	166	97%	165	98%
Elrod	305	114	109	9%	101	85%	101	92%	101	89%	109	94%	108	94%
Emerson	224	126	118	89%	117	73%	117	76%	69	77%	117	87%	118	86%
Fairchild	140	82	79	89%	79	90%	79	87%	79	80%	79	89%	79	89%
Bell	194	87	72	81%	72	76%	72	81%	72	83%	72	90%	72	89%
Field	190	155	148	78%	148	66%	147	74%	148	77%	149	81%	149	83%
Fondren	31	17	16	100%	10	100%	12	100%	10	100%	16	100%	16	100%
Foster	254	208	198	84%	198	85%	198	87%	197	88%	197	89%	198	86%
Franklin	387	168	162	84%	162	76%	159	79%	136	79%	162	83%	162	85%
Frost	73	72	72	81%	72	76%	72	85%	72	75%	72	92%	72	86%
Garden Oaks	283	107	103	90%	103	94%	103	95%	103	89%	103	94%	103	97%
Garden Villas	176	176	163	74%	152	70%	152	74%	151	72%	164	79%	163	78%
Golfcrest	283	191	181	74%	181	66%	180	71%	168	61%	181	85%	180	81%
Gordon	112	43	36	64%	36	64%	36	56%	36	58%	36	58%	36	67%
Gregg	214	110	102	97%	103	93%	102	95%	102	90%	103	95%	103	94%
Grimes	127	95	91	65%	91	56%	91	68%	91	66%	91	69%	91	71%
Harris, J.R.	175	116	111	86%	11	80%	111	87%	92	84%	111	90%	111	89%
Harris, R.P.	273	205	193	78%	193	78%	185	82%	170	82%	193	87%	191	86%
Hartsfield	214	178	175	81%	175	80%	175	86%	174	83%	175	87%	175	86%
Harvard	153	82	81	78%	67	61%	67	67%	64	61%	81	84%	79	82%
Helms	54	54	53	83%	52	87%	52	85%	50	82%	53	85%	53	91%
Henderson, J.P.	235	131	125	81%	126	57%	125	66%	40	75%	126	78%	126	78%
Henderson, N.Q.	109	57	51	78%	50	80%	50	80%	51	78%	50	84%	50	86%
Herod	106	49	45	87%	45	84%	45	91%	37	78%	45	98%	45	93%
Highland Heights	61	36	31	68%	31	81%	31	84%	31	84%	31	87%	31	87%
Hobby	191	132	129	85%	129	80%	129	81%	124	80%	129	90%	129	90%
Hohl	261	187	178	73%	170	72%	170	78%	170	72%	178	83%	178	84%
Holden	118	81	69	70%	65	52%	65	68%	42	79%	69	91%	69	84%
Horn	43	43	40	90%	40	85%	40	93%	40	95%	40	95%	40	93%
Houston Gardens	308	144	127	83%	127	77%	127	76%	125	78%	127	91%	127	91%
Isaacs	126	69	62	95%	62	89%	61	90%	61	85%	62	94%	62	92%
Janowski	317	152	148	72%	147	63%	146	63%	111	73%	148	79%	148	76%
Jefferson	96	96	91	86%	91	81%	91	88%	88	89%	91	88%	91	87%

Table 17: Pass/Fail Rate (School by Content Area)(Cont.)

School Name	Total Duplicated Count	Total Unduplicated Count	Math Number	Math Percent	Reading Number	Reading Percent	Language Number	Language Percent	Spelling Number	Spelling Percent	Science Number	Science Percent	Social Studies Number	Social Studies Percent
Jones, Anson	155	131	123	88%	124	86%	114	86%	111	91%	124	88%	124	85%
Jones, J. Will	66	62	61	79%	61	52%	61	59%	60	68%	61	71%	61	67%
Kashmere Garden	97	65	57	74%	58	74%	57	75%	57	68%	58	79%	58	81%
Kelso	188	104	102	92%	101	94%	102	90%	102	88%	102	92%	102	93%
Kennedy	172	64	61	97%	61	100%	61	100%	61	92%	61	98%	61	95%
Kolter	172	68	66	92%	57	86%	57	84%	57	86%	66	91%	66	99%
Lamar	276	168	157	98%	158	99%	158	99%	124	96%	158	97%	157	98%
Langston	106	51	51	88%	51	94%	51	94%	50	88%	50	100%	51	98%
Lantrip	287	154	144	75%	143	69%	143	78%	86	76%	144	86%	143	80%
Lee	89	50	50	86%	50	80%	47	83%	38	76%	50	72%	50	92%
Lewis	115	115	111	87%	105	82%	105	86%	104	84%	111	84%	111	82%
Lockhart	261	238	226	89%	223	87%	226	88%	225	88%	226	91%	226	89%
Longfellow	726	277	260	93%	248	93%	248	95%	248	92%	260	95%	258	95%
Looscan	728	320	304	88%	306	75%	305	83%	267	79%	306	90%	306	88%
Love	72	72	66	99%	66	85%	65	86%	45	78%	66	99%	66	97%
Lovett	44	38	35	60%	35	71%	35	77%	35	71%	35	89%	35	86%
MacGregor	130	77	73	97%	73	96%	73	99%	67	93%	73	100%	73	100%
McDade	133	128	126	793%	124	71%	123	72%	123	68%	126	79%	126	84%
Mading	284	176	169	78%	169	70%	168	73%	168	77%	169	76%	168	77%
Memorial	79	61	58	86%	58	72%	58	83%	28	86%	59	91%	59	95%
Milam	73	39	38	74%	38	58%	38	74%	19	42%	38	84%	38	87%
Montgomery	390	217	209	85%	192	80%	192	82%	191	79%	210	89%	210	89%
Neff	216	128	121	84%	110	83%	109	84%	110	86%	121	91%	121	92%
Northline	642	174	162	89%	147	81%	146	88%	115	81%	163	95%	163	95%
Oak Forest	136	75	63	92%	63	94%	63	100%	62	95%	63	98%	63	95%
Oates	507	93	85	89%	83	92%	81	95%	70	91%	85	95%	85	93%
Osborne	329	114	107	85%	108	86%	107	89%	107	82%	108	94%	106	90%
Park Place	257	106	101	98%	101	92%	101	95%	95	92%	101	91%	101	93%
Parker	289	109	104	63%	101	65%	101	68%	101	68%	104	75%	104	8%
Patterson	418	259	248	97%	221	95%	220	96%	220	96%	248	98%	248	96%
Peck	80	80	77	94%	77	87%	77	92%	77	83%	77	96%	77	91%
Pilgrim	247	120	103	74%	103	62%	98	69%	60	73%	103	78%	103	77%
Piney Point	110	73	71	68%	70	69%	71	68%	28	68%	71	75%	71	79%
Pleasantville	139	91	56	46%	55	40%	55	76%	54	78%	56	70%	56	70%
Poe	395	168	157	94%	148	95%	155	92%	140	91%	158	95%	158	92%
Port Houston	338	90	89	84%	89	75%	79	85%	68	84%	89	93%	89	94%
Pugh	172	140	132	81%	131	70%	130	75%	110	71%	132	86%	131	86%

Table 17: Pass/Fail Rate (School by Content Area)(Cont.)

School Name	Total Duplicated Count	Total Unduplicated Count	Math Number	Math Percent	Reading Number	Reading Percent	Language Number	Language Percent	Spelling Number	Spelling Percent	Science Number	Science Percent	Social Studies Number	Social Studies Percent
Red	274	152	140	89%	137	79%	136	88%	137	82%	140	77%	140	80%
Reynolds	204	112	106	73%	106	72%	106	77%	106	80%	106	88%	106	83%
Rhoads	118	118	110	86%	111	80%	111	80%	111	82%	111	86%	110	86%
McNamara	265	174	155	67%	76	55%	76	59%	72	76%	155	67%	155	70%
River Oaks	unavailable													
Roberts	93	57	56	89%	45	93%	45	98%	45	93%	56	91%	56	91%
Rogers, Will	102	58	56	84%	55	80%	56	86%	53	83%	56	89%	56	93%
Roosevelt	144	72	69	91%	69	91%	69	96%	68	91%	69	80%	68	78%
Ross	154	106	104	88%	104	79%	104	86%	103	82%	104	86%	103	87%
Rucker	400	204	193	73%	192	82%	191	70%	170	71%	193	81%	193	84%
Rusk	unavailable													
Ryan	257	123	118	86%	118	81%	118	86%	113	81%	117	83%	118	89%
Sanderson	228	184	169	97%	171	94%	170	95%	170	94%	171	97%	169	95%
Scarborough	257	164	144	83%	145	66%	144	66%	111	73%	145	88%	145	83%
Scott	75	75	73	71%	73	78%	73	81%	73	82%	73	75%	73	78%
Shearn	232	230	221	98%	220	96%	221	96%	188	95%	221	98%	220	98%
Sherman	238	131	127	86%	126	71%	126	83%	118	73%	127	76%	126	79%
Sinclair	92	59	53	85%	48	81%	49	76%	49	69%	53	87%	53	85%
Smith, K.	274	166	157	85%	156	84%	155	90%	155	86%	157	91%	157	91%
Thompson	253	199	193	89%	192	92%	192	94%	192	92%	193	93%	193	92%
Southmayd	629	303	288	80%	286	64%	285	68%	211	77%	288	82%	286	79%
Stevens	525	167	151	79%	141	70%	141	79%	141	75%	151	83%	151	80%
Stevenson	45	45	42	91%	42	88%	42	86%	5	60%	42	95%	42	95%
Sunny Side	unavailable													
Sutton	370	189	180	92%	138	80%	138	84%	76	87%	181	93%	181	93%
Travis	119	76	73	86%	72	81%	72	78%	64	86%	73	89%	73	90%
Turner	131	66	62	74%	62	82%	62	84%	62	95%	62	82%	62	76%
Twain	103	78	73	95%	73	97%	73	990%	51	96%	73	99%	73	99%
Wainwright	147	100	88	86%	85	80%	84	86%	68	77%	88	92%	87	95%
Walnut Bend	252	165	148	77%	146	69%	145	75%	113	75%	148	83%	148	85%
Wesley	78	78	70	90%	70	94%	70	96%	70	96%	70	94%	70	91%
West University	194	75	71	93%	68	93%	68	90%	68	85%	71	100%	71	96%
Wharton	116	93	92	89%	83	84%	82	90%	53	96%	92	90%	92	78%
Whidby	101	99	96	99%	97	95%	97	98%	96	98%	96	96%	97	97%
Whittier	276	75	63	84%	63	86%	63	89%	63	76%	63	94%	63	94%
Wilson	80	40	39	97%	31	90%	31	87%	31	84%	39	97%	39	95%
Windsor Village	187	109	105	81%	99	70%	99	75%	98	71%	105	76%	105	76%

Table 17: Pass/Fail Rate (School by Content Area)(Cont.)

School Name	Total Duplicated Count	Total Unduplicated Count	Math Number	Math Percent	Reading Number	Reading Percent	Language Number	Language Percent	Spelling Number	Spelling Percent	Science Number	Science Percent	Social Studies Number	Social Studies Percent
Chatham	180	143	131	81%	131	80%	130	81%	131	78%	131	88%	128	86%
Grissom	336	208	205	78%	205	70%	205	77%	191	81%	204	78%	205	78%
Law	176	153	143	88%	145	81%	144	85%	146	82%	144	87%	144	90%
Mitchell	128	91	81	73%	77	77%	76	78%	64	83%	81	90%	81	89%
Petersen	91	57	54	100%	53	93%	53	96%	53	93%	54	98%	54	98%
Pleasants	81	45	45	96%	45	96%	45	96%	45	96%	45	96%	45	96%
White	393	206	193	86%	147	78%	147	83%	135	84%	193	91%	193	89%
Benbrook	200	134	114	90%	107	84%	111	89%	93	83%	114	94%	113	96%
Scroggins	83	83	78	86%	78	78%	77	84%	43	84%	78	91%	78	94%
Concord	102	102	96	93%	95	87%	96	91%	96	90%	96	94%	95	93%
Foerster	255	150	136	85%	133	83%	132	85%	126	78%	137	93%	137	95%
MacArthur	128	74	70	86%	70	84%	70	90%	59	81%	70	90%	70	84%
Ashford	97	59	55	87%	54	78%	54	94%	54	91%	55	96%	55	95%
Askew	503	182	165	81%	149	79%	149	78%	102	77%	165	87%	165	82%
Tijerina	256	114	110	85%	109	67%	111	76%	61	80%	110	86%	110	90%
Sanchez	483	279	264	68%	262	68%	261	72%	226	65%	264	74%	264	67%
Gregory-Lincoln	90	54	50	78%	40	80%	40	80%	39	77%	50	90%	50	84%
Cage	471	246	238	91%	238	88%	237	92%	165	89%	238	95%	238	92%
Davila	242	156	148	90%	147	84%	147	89%	114	85%	149	95%	146	92%
Milne	98	62	59	95%	58	93%	57	98%	58	93%	59	92%	59	100%

Table 18: Pass/Fail Rate (Count of Failing Courses by School)

School Name	Number Failing 1	Percent Failing 1	Number Failing 2	Percent Failing 2	Number Failing 3	Percent Failing 3	Number Failing 4	Percent Failing 4	Number Failing 5	Percent Failing 5	Number Failing 6	Percent Failing 6
Alcou	7	16%	8	18%	10	23%	6	14%	4	9%	9	21%
Allen	2	25%			1	13%	1	13%	1	13%	3	38%
Almeda	6	21%	5	17%	2	7%	10	35%	3	10%	3	10%
Anderson	15	33%	9	20%	6	13%	7	16%	5	11%	3	7%
Atherton	3	18%	3	18%	6	35%	3	18%	1	6%	1	6%
Barrick	10	42%	3	13%	5	21%	5	21%			1	4%
Bastian	22	27%	8	10%	9	11%	5	6%	15	19%	22	27%
Berry	20	37%	17	32%	4	7%	6	11%	7	13%		
Blackshear	8	24%	4	12%	3	9%	5	15%	5	15%	8	24%
Bonham	11	18%	9	15%	11	18%	12	19%	8	13%	11	18%
Bonner	14	23%	14	23%	11	18%	11	18%	9	15%	23	
Bowie	11	24%	10	22%	9	20%	3	7%	8	16%	5	11%
Braeburn	12	41%	6	21%	3	10%	2	7%	3	10%	3	10%
Durham	1	9%	2	18%	4	36%	2	18%	1	9%	1	9%
Briargrove	6	30%	3	15%	6	30%	3	15%	1	5%	1	5%
Briscoe	11	79%	1	7%	2	14%						
Brock	8	53%	1	7%	2	13%	1	7%	2	13%	1	7%
Brookline	16	31%	14	28%	12	24%	4	8%	3	6%	2	4%
Browning	8	28%	10	35%	9	31%	2	7%				
Bruce	4	15%	5	19%	4	15%	5	19%	1	4%	7	27%
Burbank	17	28%	11	18%	10	16%	12	20%	4	7%	7	12%
Codwell	24	38%	14	22%	5	8%	7	11%	2	3%	12	19%
Burnet	15	35%	10	23%	12	28%	1	2%	4	9%	1	2%
Burrus	7	21%	5	15%	9	27%	3	9%	6	18%	4	12%
Carnegie	6	17%	3	9%	7	20%	10	29%			9	26%
Clinton Park	8	42%	5	26%					4	21%	2	11%
Condit	17	37%	11	24%	11	24%	3	7%	3	7%	1	2%
Coop	13	20%	16	25%	13	20%	8	13%	12	19%	2	3%
Cornelius	12	19%	16	26%	10	16%	15	24%	7	11%	2	3%
Crawford	6	23%	3	12%	4	15%	4	15%	1	4%	8	31%
Crockett	8	73%	1	9%			2	18%				
Cunningham	22	23%	22	23%	17	18%	14	14%	17	18%	5	5%
Dechaumes	24	32%	14	19%	13	18%	8	11%	12	16%	3	4%
DeZavala	5	23%	4	18%	8	36%			3	14%	2	9%
Dodson	6	14%	4	10%	8	19%	7	17%	7	17%	10	24%
Dogan	9	20%	9	20%	9	20%	6	13%	6	13%	7	15%
Douglass	1	7%	5	36%	3	21%	3	21%	1	7%	1	7%
Dow	4	25%	2	13%	4	25%	1	6%	5	31%		

Table 18: Pass/Fail Rate (Count of Failing Courses by School) (Cont.)

School Name	Number Failing 1	Percent Failing 1	Number Failing 2	Percent Failing 2	Number Failing 3	Percent Failing 3	Number Failing 4	Percent Failing 4	Number Failing 5	Percent Failing 5	Number Failing 6	Percent Failing 6
Durkee	22	37%	15	25%	14	23%	4	7%	2	3%	3	5%
Easter	6	50%			2	17%			2	17%		
Eighth Avenue	7	39%	2	11%	4	22%	4	22%			1	6%
Eliot	3	27%	2	18%	1	9%	3	27%	1	9%	1	9%
Elrod	14	52%	5	19%	2	7%	2	7%	3	11%	1	4%
Emerson	18	35%	15	29%	10	19%	3	6%	5	10%	1	2%
Fairchild	4	21%	4	21%	4	21%	1	5%	3	16%	3	16%
Bell	12	44%	4	15%	3	11%	1	4%	3	11%	4	15%
Field	16	24%	13	19%	13	19%	13	19%	2	3%	11	13%
Fondren												
Foster	18	34%	6	11%	8	15%	7	13%	7	13%	7	13%
Franklin	15	27%	9	16%	6	11%	9	16%	10	18%	7	13%
Frost	6	25%	3	13%	5	21%	5	21%	1	4%	4	17%
Garden Oaks	9	47%	4	21%	2	11%	2	11%	2	11%		
Garden Villas	23	30%	10	13%	12	16%	7	9%	10	13%	14	18%
Golfcrest	24	26%	14	15%	17	18%	17	18%	7	8%	14	15%
Gordon	4	19%	1	5%	3	14%	2	10%	5	24%	6	29%
Gregg	8	50%	1	6%	4	25%	2	13%			1	6%
Grimes	16	28%	6	11%	3	5%	17	30%	9	16%	6	11%
Harris, J.R.	8	25%	4	13%	10	31%	5		16	5%	16	
Harris, R.P.	21	31%	7	10%	12	18%	15	22%	7	10%	6	9%
Hartsfield	15	28%	9	17%	5	9%	8	15%	8	15%	8	15%
Harvard	9	24%	8	21%	6	16%	6	16%	3	8%	6	16%
Helms	7	39%	4	22%	2	11%	1	6%	2	11%		
Henderson, J.P.	21	30%	14	20%	11	16%	12	17%	10	15%	1	1%
Henderson, N.Q.	3	21%			3	21%	1	7%	1	7%	6	43%
Herod	7	50%	1	7%	4	29%	2	14%				
Highland Heights	5	42%	2	17%	1	8%	1	8%			3	25%
Hobby	10	27%	1	3%	10	27%	6	16%	4	11%	6	16%
Hohl	16	23%	9	13%	10	14%	15	21%	4	6%	16	23%
Holden	12	32%	10	26%	4	11%	5	13%	7	18%		
Horn	4	40%	4	40%	1	10%			1	10%		
Houston Gardens	13	27%	14	29%	6	13%	7	15%	3	6%	5	10%
Isaacs	1	10%	3	30%	1	10%	2	20%	2	20%	1	10%
Janowski	13	17%	17	22%	16	21%	9	12%	16	21%	6	8%
Jefferson	12	41%	6	21%	5	17%			1	3%	5	17%
Jones,Anson	9	28%	7	22%	5	16%	5	16%	2	6%	4	13%
Jones, J. Will	5	16%	3	9%	2	6%	9	28%	7	22%	6	19%

Table 18: Pass/Fail Rate (Count of Failing Courses by School) (Cont.)

School Name	Number Failing 1	Percent Failing 1	Number Failing 2	Percent Failing 2	Number Failing 3	Percent Failing 3	Number Failing 4	Percent Failing 4	Number Failing 5	Percent Failing 5	Number Failing 6	Percent Failing 6
Kashmere Gardens	8	32%	1	4%	5	20%	1	4%	4	16%	6	24%
Kelso	6	33%	3	17%	3	17%	3	17%			3	17%
Kennedy	9	90%	1	10%								
Kolter	8	44%	4	22%	4	22%	1	6%	1	6%		
Lamar	3	38%	1	13%	1	13%	3	38%				
Langston	5	56%	1	11%			3	33%				
Lantrip	20	30%	16	24%	6	9%	16	24%	7	10%	2	3%
Lee	8	42%	2	11%	1	5%	3	16%				
Lewis	10	29%	7	21%	4	12%	4	12%	3	9%	6	18%
Lockhart	8	19%	7	16%	6	14%	8	19%	2	5%	12	28%
Longfellow	25	60%	3	7%	2	5%	7	17%	2	5%	3	7%
Looscan	26	26%	20	20%	21	21%	18	18%	8	8%	8	8%
Love	9	50%	5	28%	2	11%	2	11%				
Lovett	12	50%	3	13%	6	25%	1	4%	1	4%	1	4%
MacGregor	5	71%			2	29%						
McDade	13	24%	9	17%	6	11%	10	19%	4	7%	12	22%
Mading	14	18%	18	23%	15	19%	12	15%	11	14%	9	11%
Memorial	6	32%	5	26%	3	16%	4	21%	1	5%		
Milam	6	30%	2	10%	7	35%	1	5%	1	5%	3	15%
Montgomery	22	32%	11	16%	10	15%	14	21%	6	9%	5	7%
Neff	17	41%	11	26%	8	19%	3	7%			3	7%
Northline	10	26%	11	29%	6	16%	6	16%	1	3%	4	11%
Oak Forest	4	40%	6	60%								
Oates	9	53%	3	18%	2	12%	1	6%	1	6%	1	6%
Osborne	8	29%	7	25%	3	11%	6	21%			4	14%
Park Place	9	50%	4	22%			4	22%			1	6%
Parker	25	37%	11	16%	9	13%	9	13%	7	10%	7	10%
Patterson	14	56%	2	8%	4	16%	4	16%			1	4%
Peck	8	44%			5	28%	4	22%	1	6%		
Pilgrim	8	16%	9	18%	12	25%	5	10%	13	27%	2	4%
Piney Point	8	22%	8	22%	4	11%	7	19%	8	22%	1	3%
Pleasantville	11	26%	7	17%	11	26%	6	14%	2	5%	5	12%
Poe	14	47%	3	10%	10	33%	1	3%	2	7%		
Port Houston	9	32%	6	21%	5	18%	6	21%	2	7%		
Pugh	20	35%	9	16%	6	10%	10	17%	7	12%	6	10%
Red	25	37%	19	28%	13	19%	6	9%	3	5%	1	2%
Reynolds	7	17%	6	15%	13	32%	5	12%	3	7%	7	17%
Rhoads	13	35%	4	11%	7	19%	3	8%	4	11%	6	16%

Table 18: Pass/Fail Rate (Count of Failing Courses by School) (Cont.)

School Name	Number Failing 1	Percent Failing 1	Number Failing 2	Percent Failing 2	Number Failing 3	Percent Failing 3	Number Failing 4	Percent Failing 4	Number Failing 5	Percent Failing 5	Number Failing 6	Percent Failing 6
McNamara	16	19%	22	26%	29	34%	9	11%	6	7%	3	4%
River Oaks	unavailable											
Roberts	4	33%	5	42%	3	25%						
Rogers, Will	4	22%	5	28%	5	28%	3	17%			1	6%
Roosevelt	6	27%	9	41%	5	23%			1	5%	1	5%
Ross	6	21%	10	35%	1	3%			4	14%	8	28%
Rucker	23	26%	17	19%	24	27%	6	7%	6	7%	13	15%
Rusk	unavailable											
Ryan	9	24%	8	22%	6	16%	5	14%	5	14%	4	11%
Sanderson	8	47%	2	12%	2	12%	1	6%			4	24%
Scarborough	16	24%	12	18%	21	31%	8	12%	8	12%	3	4%
Scott	7	23%	5	17%	6	20%	3	10%	3	10%	6	20%
Shearn	3	21%	3	21%	3	21%	3	21%	1	7%	1	7%
Sherman	17	29%	14	24%	8	14%	8	14%	7	12%	5	9%
Sinclair	13	48%	7	26%	3	11%			1	4%	3	11%
Smith, K.	23	47%	10	20%	5	10%	3	6%	4	8%	4	8%
Thompson	7	23%	8	27%	4	13%	3	10%	1	3%	7	23%
Southmayd	33	22%	46	31%	28	19%	22	15%	12	8%	9	6%
Stevens	16	25%	10	16%	12	19%	11	18%	5	8%	9	14%
Stevenson	2	25%	2	25%	2	25%	1	13%	1	13%		
Sunny Side	unavailable											
Sutton	10	26%	8	21%	11	29%	6	16%	2	5%	1	3%
Travis	4	20%	4	20%	4	20%	3	15%	4	20%	1	5%
Turner	5	25%	2	10%	3	15%	3	158%	6	30%	1	5%
Twain	3	50%	1	17%	2	33%						
Wainwright	16	50%	3	9%	8	25%	3	9%	2	6%		
Walnut Bend	32	40%	20	25%	11	14%	5	6%	5	6%	7	9%
Wesley	6	55%	1	9%			2	18%	1	9%	1	9%
West University	8	44%	8	44%	2	11%						
Wharton	6	24%	6	24%	9	36%	3	12%	1	4%		
Whidby	3	50%			1	17%			1	17%	1	17%
Whittier	8	47%	1	6%	1	6%	3	18%			4	24%
Wilson	3	38%	2	25%	3	38%						
Windsor Village	11	22%	8	17%	10	20%	8	16%	8	16%	4	8%
Chatham	14	30%	9	20%	4	9%	7	15%	5	11%	7	15%
Grissom	23	26%	17	19%	13	15%	11	12%	9	10%	16	18%
Law	7	18%	7	18%	5	13%	11	29%	3	8%	5	13%
Mitchell	13	39%	7	21%	2	6%	6	18%	2	6%	3	9%

Table 18: Pass/Fail Rate (Count of Failing Courses by School) (Cont.)

School Name	Number Failing 1	Percent Failing 1	Number Failing 2	Percent Failing 2	Number Failing 3	Percent Failing 3	Number Failing 4	Percent Failing 4	Number Failing 5	Percent Failing 5	Number Failing 6	Percent Failing 6
Petersen	1	20%	1	20%	3	60%						
Pleasants	2	50%					1	25%			1	25%
White	17	30%	16	28%	12	21%	3	5%	6	11%	3	5%
Benbrook	1	37%	10	33%	3	10%	3	10%	1	3%	2	7%
Scroggins	6	29%	3	14%	7	33%	2	10%			3	14%
Concord	4	21%	6	32%	4	21%	3	16%	1	5%	1	5%
Foerster	23	49%	3	6%	10	21%	8	17%	1	2%	2	4%
MacArthur	7	35%	5	25%	1	5%	2	10%	1	5%	4	20%
Ashford	7	44%	6	38%	1	6%	1	6%			1	6%
Askew	15	25%	16	27%	10	17%	6	10%	8	13%	5	8%
Tijerina	8	19%	18	43%	2	5%	4	10%	8	19%	2	5%
Sanchez	33	23%	24	17%	21	15%	26	18%	16	11%	25	17%
Gregory-Lincoln	5	33%	2	13%			2	13%	4	27%	2	13%
Cage	21	40%	14	27%	8	15%	4	8%	1	2%		
Davila	14	33%	17	41%	4	10%	5	12%			2	5%
Milne	5	56%	1	11%	2	22%	1	11%				

Discussion

This evaluation investigated three aspects of the RAP tutorial program in HISD secondary schools: attendance, grade change, and cost. Although data are also presented from elementary schools, only listings of pass/fail rates are given because of the elementary schools' grade reporting practices. Results of secondary data indicated minimal effects overall. While the average grades of a few schools (and certainly some individual students throughout the district) showed improvement, this report documents the fact that the tutorial program had no discernable positive effect for the majority of eligible students who attended. Although this evaluation report did not use reduction of failure as its outcome variable (for reasons previously stated), the reader may deduce, and correctly so, that the program had minimal effect on the reduction of failures. Also, cost did not appear to have an effect on grade improvement. While results may be compared to previous research, this report's intention is to evaluate the HISD program *per se*.

The four questions were addressed because they seemed to be most pertinent to assessment of the program. They allowed the two main variables of attendance and grade change to be viewed from several perspectives, the culmination of which can provide some insight into the program's effectiveness. Of critical importance, the statistically significant differences are offset by low effect sizes (these effect sizes are significant due to the large sample sizes). The analyzing and reporting of the tests of the null hypotheses were indeed conducted for generalizability, as well as for further information of this year's specific program.

However, what is of more value to this evaluation are the descriptive statistics and aggregate data. Because the samples are a census, these data are actually the parameters of the HISD population. As stated by Carver (1978), and many others cited in his article, tests of null hypotheses should, at the very least, be placed in perspective and should not be the final word on results. This investigation is a good example of this contention. Perhaps the most important figure reported here is the average number of days attended: 6.22 days and 6.84 days respectively for the first and second semester. The average length of the sessions in secondary schools was one hour. Over a twelve week period, students attended tutorials an average of one hour for every two weeks. (The data indicated no correlation between this attendance and grade improvement.)

Should the criteria for RAP's success be a minimum mean grade improvement or a minimum reduction of failure? Or is it successful simply because services were provided in accordance with state law? The choice of grade improvement as the dependent variable on the study of school effectiveness is debateable. It has been said that criteria for evaluating the effectiveness in a teacher-student relationship should be the same as that found in doctor-patient and lawyer-client relationships. That is, "Were services rendered in accordance with the standards and practices of the profession?" Patient health or client innocence is not the outcome variable. However, education has traditionally used grades and standardized test scores as outcome variables for years. Even when other variables were used (e.g., rates of delinquency, rates of dropouts, future occupational status, educational advancement), evaluations have reported the ineffectiveness of compensatory programs such as Head Start, Title I, and others (Cohen & Garet, 1975).

Another aspect of this study was the distinction between schools. Three middle schools showed relatively high increases from the first grading cycle to the third: Lanier M.S., 7.06; Edison M.S., 6.27; and Key M.S. While the specifics of these programs (types of instruction, concentrations, incentives, etc.) are still in the process of being investigated, it is interesting to note one common factor–a lower number of students served. These three schools' reported enrollment was 18 (i.e. one class), 116, and 84 respectively. The schools with 18 and 84 reported the lowest enrollments of the programs. The average enrollment of the all tutorials was 200. As a few teachers and principals have stated in interviews,"Fifteen students in a class is not a tutorial." Perhaps more individualized instruction should be considered.

Some schools have used the tutorial sessions for some apparently constructive purposes other than reduction of failures. For example, one elementary holds tutorials three weeks prior to TAAS and MAT-6 examinations, concentrating on testing areas. They have recorded increased scores over previous years. However, with regards to the intent of the program–reduction of academic failures, elementary schools continue to record failures, and in secondary schools, the Required Academic Proficiency tutorial program has recorded no discernable effects on student grade improvement .

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